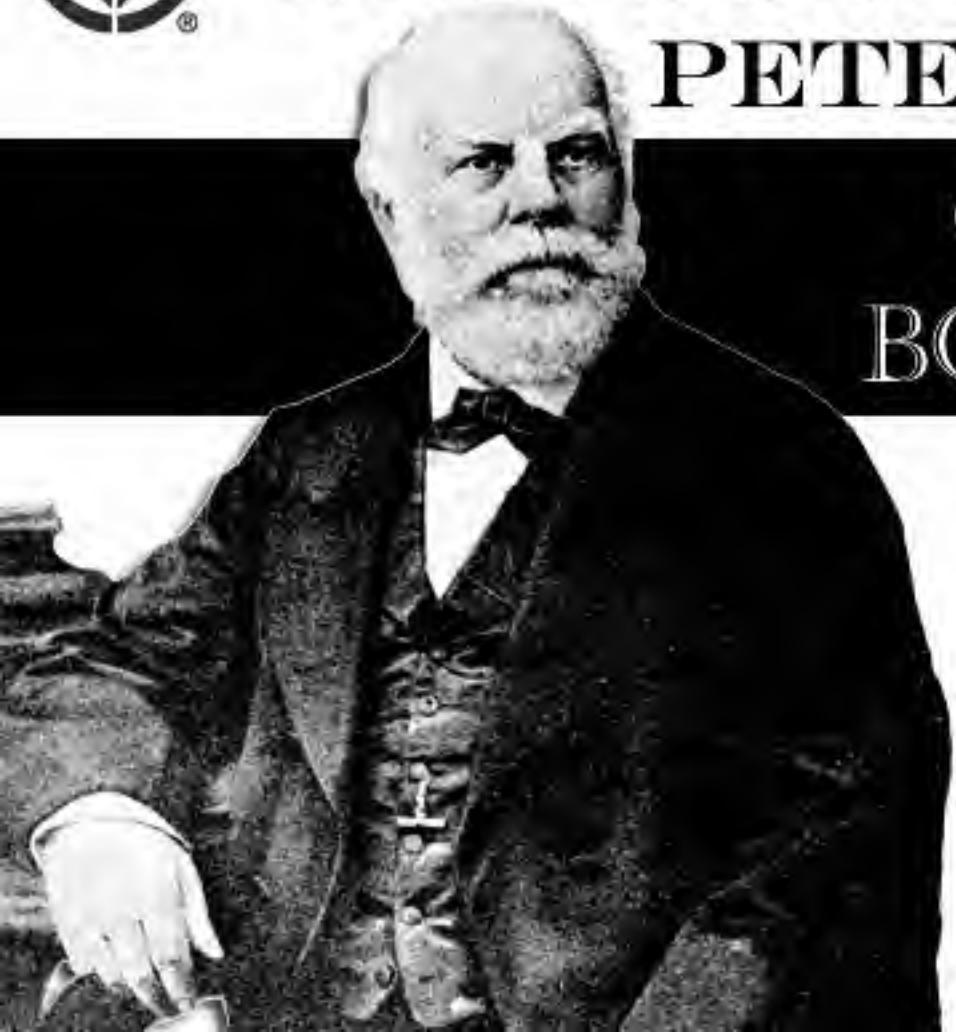




MISSOURI BOTANICAL GARDEN

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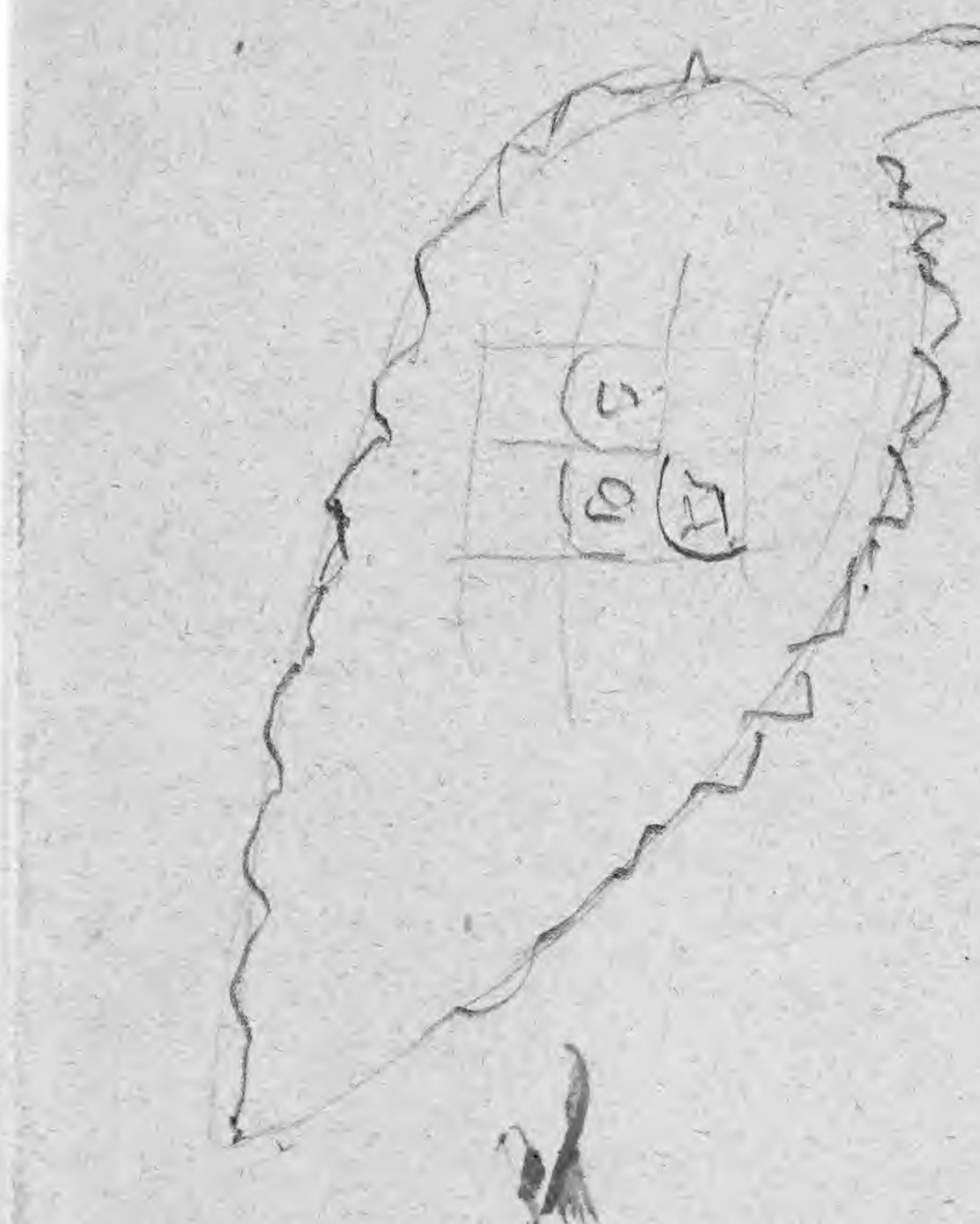
GEORGE ENGELMANN BOTANICAL NOTEBOOKS

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P. insulanus Presl

H. Hort Col. Proj
22nd 1869

Pinus deyrolleensis Presl Miss
Lyon, Cumming 956.



strobili latente
 $\frac{1}{2}$ - 2 inches
below end of
branch in this spec.

P. Insulanus, Cumming GL Epiphiles - 956 - cones apical,
several together, like small spheres,
ready opening; persistent

H. Herb Sept 6 1869

The same, Oklippi, Cumming, in H. Woods, Florida, has cones apical



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George Engelmann

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HB Kew. Sept 6 1869

Pim Khasiana (P. Khasiana ^{rough, Khasiana}) Hook f. & Th. - " Herb. East Ind. Comp. 4995.
 printed label in East Bengal, Herb. Griffit.
 leaves slender, in 3 (nearly 4) wh-^l leafy lvs; sheaths 1.5
 long - cones ^(incomplete?) globose 3 p. and long, sun-dint, sessile,
 horizontal - apical [^{also} lateral ?] The specm has a
 ripe cone, which is evidently terminal (leaves below it have all
 fallen) only those of the young ^{axis} branch remain) but on the
 axis of the present year, 12 and long, I find 3 and below
 the terminal but 2 horizontal young cones
 and above them no naked space.
 are they lateral? or as now
 we probly, rather apical?
 has the branch grown up 3 feet
 in a third year? This is probably
 reason of this part are broken, and
 remaining, which is not the case below
seems to
and
more
as the
the branch
the young cones

P. Khasiana, Youngiana Ritter & Brandis. with apical
 young cones and male fl. anthers 1.5 and long - upright,
 4-5 and long cones much like those of P. cyathiflora, round,
 conic, 5 p. and long 3 - diam.
 Spec with very slender leaves 15-17 and 5, cones as in last,
 short peduncle 2 ^{opposite} together, apical? *Ophelia* Hook & Th. No. 12
 Perhaps rising in 3rd year, as in *Picea* thus explaining the
 difficulty of the species.



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~~exhibit it was so failed
Great lumber wealth of Oregon Washington
imperial north America 300-350 years old~~

var macrocarpa D. This tree var macrocarpa Zorn. - Des Cif. p. 28
This macrocarpa Vasey in Gardens monthly Jan 1876
tree 50(-80) x H₂(3'). sprawling branches very long
soft thick, deeply furrowed

leaves 9-12" incis, acute.

D 3/4" - ~~infl of 2 glabrous leaves~~
~~lvs 5-6 1/2" incl x 2~~ ^{except at} ~~bracts not projecting above the sole~~
~~only axillary, only 1/2 as wide~~

scars 5". very so caught, wood - white convex brown
at 9-12" thin on upper white dull flat on lower

^{3000'}
in St Louis Circa
in the Canons of the foothills of St Bernadine Mts., the first canons
occur at - now higher than 5000 feet and below the general
region of conifer, with some oaks

An old tree from



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Pisatore Conf P.O. Box 3388. 789.

12298

Pinus Thunbergii Park.

arbor magna coma latissima

squamis laevolata acum. latis. fibrosa exserta orniatis ornatis (in utrigen)

eguis brevibus laevis

foliis longis rufis rigidis 10-14 cm. long.
 $1\frac{1}{4}$ - $1\frac{1}{2}$ m. lat.
anulis nigris subcapitato-congestis cylindrica
14-18 mm. long. 2-3 m. lat.

trabilijs nigris patentibus

adultis subdeflexis, ovato-conicis
- rufis, comis, seeds about the same in both.

Pinus Manniana Lamb.

arbor exulta

ornatis ornatis (in utrigen)

trabilijs patentibus

longis terminatis 14-18 cm. long.
or 1 m. lat.
cylindro-oblongis insperioribus elongatis dipinens

16-18 mm. long. 3-4 m. lat.

erectis

substantibus onto-oblongis

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P. Brongniartii Juss., Chois. loc. remarkable because
in this species (which was all in early spring - male
aments formed, but very small) the bracts are white
lanceolate, scarious but not fragrant all!

Also: because the sheaths have entirely dropped
not only on the old leaves (oldest 4 years old)
but also on the youngest ones, about 10 months old.
Annual, terminal spike.

To Miss Adelie Wadsworth July 21-22 1869



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P. sylvestris var *Haynensis* Andrew Murray - Journ. Botan. 1869. 473
Same figs of cone and of anthers, cones slender, anthers with
short blunt awl. -

Kew Sept 1869

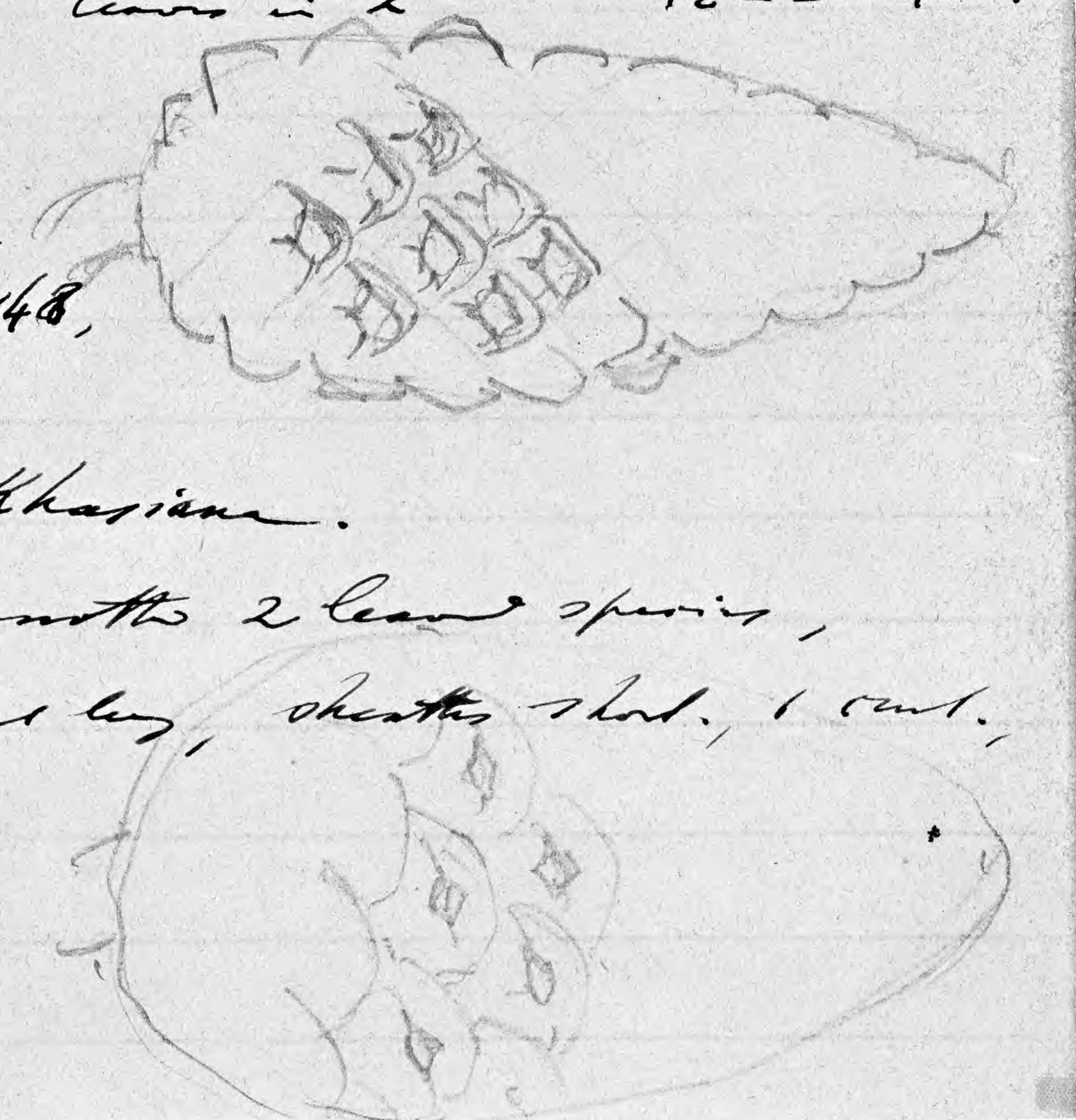
Plants No 4993 Bisma, H. Griffith - leaves in 2' 12-22 and
long - cones 7 or 8 long, knobby -
somewhat resembles *P. sylvestris*

Letter from Edw: O'Riley ^{Amherst} 10 April 1848,
who seems to send this to Griffith -

It looks like a two leaved Khasian.

4992 Afghanistan H. Griffith is another 2 leaved species,
but leaves shorter, 10-12 out long, sheathes short, 1 out,
cones more oval

Why not *Thunbergia*?



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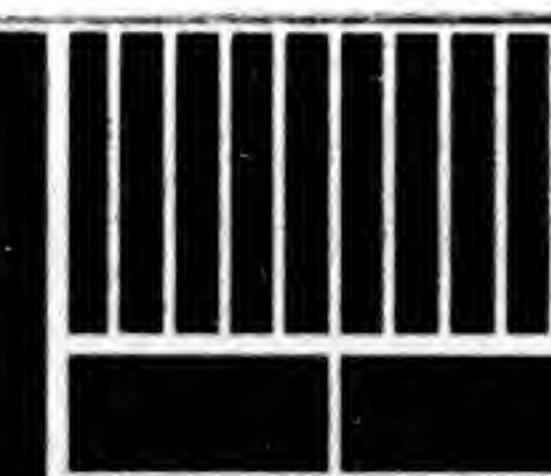
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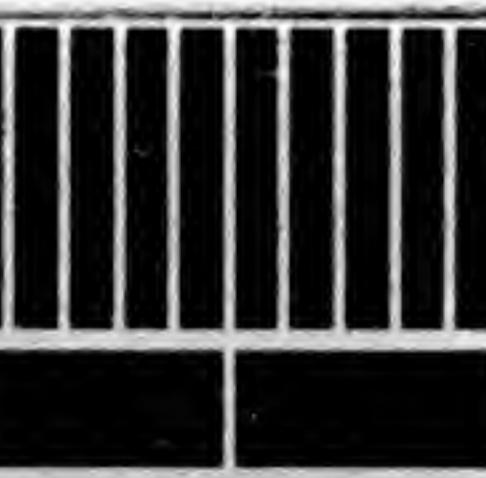


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Pinus Koreanus Sch. Bip. is too close to *Cembra*, Yokohama
cult., Maximowicz 1862 scales of cones perhaps more granular

"*P. Koreanus* Sch. Bip?" "Maximowicz 1865 terminal few. awns -
Hokkaido Why this?"

Sept. 1869 Loose seed and a branch, "in a box for Japan sent to Dr. Hooker 1865"
seems to be the same



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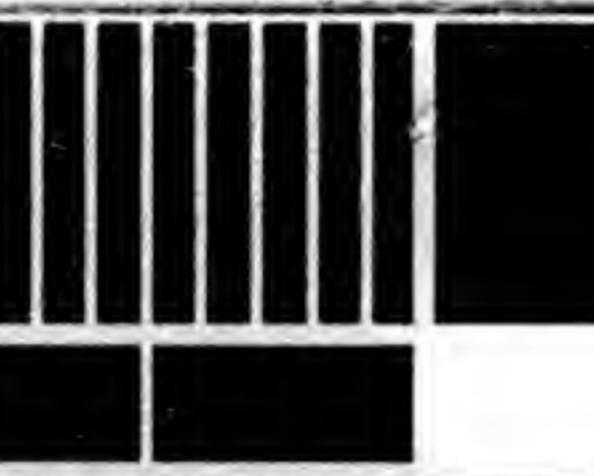
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Pines *Finkaysoniana* Willd. "6062" ^{= Mertensia picea Pallat. p. 389} ^{to Kew Sept 6 1869}
"Aigostomis" H. Zibig, Cedrelina
Ex H. A. Boott" - leaves $\frac{1}{2}$ - 2 $\frac{1}{2}$ - 22 - 25 mm long, sheaths 7-8 mm
yrs stem much like *Halepensis*, only was closer
placed here roughly with long foliage on it. two curved bracts & long style?



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Pinus excelsa, often not more than 7 or 8 feet long leaves, ^{to Kew. Sept 6 1869} and 9 in. wide fl. is short beard, globose, 3 feet long - 9 is Diana.
(- sp. Griffit from Bootan) leaves in other species 80-100 cm
long. cones 12-13 cent long, - sp. from Kashmir ^{20 cent long}
otto de Scopoli Flora of 1868.

Pinus excelsa pinn. awnlets and cones not quite terminal -
always (- in Govt. specimens examined) a few bunches of leaves
between these and the terminal bud. [much as in *P. edulis*?]
Cones drop off maturity. - earlier ripe the others, same as Stokes -



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Hb Kew Sept 6 1869
Pinus mandshurica Rupr. *Anom Maxima* Swartz. is a Cembra with
slender, serrated leaves, 8-9 cm long; not so crowded as in
the ordinary Cembra - Young cones over 6 cm long, on
peduncles 2 cm in length.



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Pitcairnia diffusa S. J. Yokohama, May, Kew, 1862 small apical round
cones. scales with a very slight knob, probule short
sharp, decurrent or rubbed off. — Male spike

2-3 cm long, cylind., less than 1 cm diam.

355 A. Oldham's species Nagasaki 5/62 just diffusa, spike 3½ - 4 cm
long, near 1½ cm diam.

Hb. Kew Sept 6 1869

Pitcairnia diffusa S. J. ~~sp.~~ *Japonica* ex Hb Augd' Balsam
Anemone fenn. apiculata *folia apice dentata*
sparsum serrata?

Hb. Mus. N. L. July 1869



Scales of fenn. anemone



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